**English course: 2sd year geography, S2, 2024**

**Prof/ Adad Med Chérif**

**Session 5 & 6 :/ PHYSICAL GEOGRAPHY AND ENVIRONMENTAL STUDIES**

**SESSION 5: PHYSICAL GEOGRAPHY**

This session will introduce you to the essential vocabulary used in physical geography, focusing on three key areas: landforms, climate, and biomes.

Physical geography, as a branch of geography, constitutes the examination of Earth's natural features and the intricate processes that govern them. This field of study casts a wide net, encompassing various essential aspects such as landforms, climate dynamics, vegetation patterns, soil composition, and hydrological phenomena. Physical geographers serve as investigators, delving into the complex interactions among these components to unravel the underlying mechanisms that contribute to the ever-changing landscapes and environmental conditions on our planet. Through meticulous observation, data analysis, and modeling techniques, physical geographers aim to gain a comprehensive understanding of the dynamic systems that shape Earth's surface, contributing valuable insights to fields such as environmental management, resource conservation, and disaster mitigation.

Biomes, vast regions characterized by distinct plant and animal communities, are the crowning jewels of our planet. The dynamic relationship between landforms, climate, and biomes is a constant dance. Mountains influence weather patterns, which in turn affect the distribution of plant and animal life. Biomes, through processes like plant respiration, can even have subtle impacts on climate. Understanding these complex interactions is vital for appreciating the delicate balance of our planet's ecosystems.

**Vocabulary:**

1. ***Geography:*** The study of the Earth's physical features and its atmosphere, and of human activity as it affects and is affected by these, including the distribution of populations and resources, land use, and industries.
2. ***Process*** : Series of actions or steps taken in order to achieve a particular end
3. ***To encompass*** : To include or to contains within its scope or range
4. ***Dynamic***: Characterized by constant change, activity, or progress
5. ***Delving into*** : To investigate or explore deeply and thoroughly.
6. ***Cast a wide range***: To encompass or cover a broad spectrum or variety of things
7. ***To unravel***: to solve, clarify, or explain something that is complex, mysterious
8. ***Insights to fields***: Refers to valuable understandings that contribute to various areas of study,
9. ***Modeling techniques***: Refer to the methods and approaches used to create mathematical, computational, or conceptual models that simulate real-world phenomena
10. ***Crowning jewels:*** Expression used to describe the most exceptional or outstanding elements within a larger group or collection.
11. **Subtle:** nuanced, delicate, or refined
12. ***Mitigation:*** Refers to the action of reducing the severity, impact, or risk of something undesirable
13. ***Landforms***: Natural features of the Earth's surface, such as mountains, valleys, plains, and plateaus, shaped by geological processes like erosion and tectonic activity.
14. ***Climate***: Long-term patterns of temperature, precipitation, humidity, wind, and atmospheric pressure in a particular region.
15. ***Vegetation***: Plant life covering the Earth's surface, including forests, grasslands, deserts, and tundra, influenced by climate, soil, and other environmental factors.
16. ***Soil*** : The upper layer of Earth's surface composed of mineral particles, organic matter, water, and air, formed through weathering and supporting plant growth and ecosystems.
17. ***Hydrology***: The study of water in the Earth's atmosphere, on its surface, and underground, including processes such as precipitation, runoff, and groundwater flow.
18. ***Biome***: A large region of the Earth characterized by distinct plant and animal communities, shaped by climate and landforms.

**Exercise 1:**

1. Physical geography explores the interactions between Earth's natural features and \_\_\_\_\_\_\_.
2. Climate is the long-term patterns of \_\_\_\_\_\_\_ , precipitation, humidity, wind, and atmospheric pressure.
3. Vegetation types are influenced by factors such as \_\_\_\_\_\_\_ and soil conditions.
4. Soils are formed through \_\_\_\_\_\_\_ and support plant growth and ecosystems.
5. Hydrology studies the movement and distribution of water on Earth's surface, including processes such as \_\_\_\_\_\_\_ and groundwater flow.

**Exercise 2:**

1. Landforms are shaped by various \_\_\_\_\_\_\_ processes such as erosion and \_\_\_\_\_\_\_ activity.
2. Climate is influenced by factors such as latitude, altitude, and atmospheric \_\_\_\_\_\_\_ patterns.
3. Vegetation types are closely linked to climate and \_\_\_\_\_\_\_ conditions.
4. Soils vary in texture, structure, and fertility depending on factors such as climate and \_\_\_\_\_\_\_ material.
5. Hydrology examines processes such as \_\_\_\_\_\_\_ , evaporation, and groundwater flow.